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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,059	11/29/2001	Eduard Rudolf Geus	TS 0858 US	9561

7590 07/01/2003

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EXAMINER
NGUYEN, TAM M

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 07/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/980,059	GEUS ET AL.	
	Examiner	Art Unit	
	Tam M. Nguyen	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4)☐ Interview Summary (PTO-413) Paper No(s). _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

DETAILED ACTION

Response to Amendment

The objection to claim 6 is withdrawn by the examiner in view of the amendment filed on April 21, 2003.

The rejection of claims 2, 3, and 7 under 35 USC § 112 is withdrawn by the examiner in view of the amendment filed on April 21, 2003.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harandi (4,605,4930) in view of admitted prior art.

Harandi discloses a process for separating a gaseous product including propene from other saturated and unsaturated hydrocarbons in a mixture by feeding the mixture into a first separating zone to produce a hydrocarbon-rich liquid fraction and a hydrogen containing gaseous fraction. The gaseous fraction is then passed into an absorber zone and the liquid fraction is then passed into a stripping zone to obtain products as in the claimed process. (See entire patent)

Harandi does not disclose that hydrogen is being separated from the gaseous fraction before passing the fraction into the absorber section. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Harandi by separating hydrogen from the gas fraction because hydrogen is not a critical component in the process of Harandi. Therefore, one of skill in the art would remove hydrogen from the gaseous fraction if one desires and it would be expected that the results would be the same or similar when either hydrogen is separated from the gaseous fraction or not.

Harandi does not disclose the use of a membrane to separate hydrogen from the gaseous fraction. However, the use of a membrane to separate hydrogen from the gaseous fraction is known in the art (see the present specification; page 4, lines 25-28; page 5, lines 14-23). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Harandi by using a membrane to separate

hydrogen from the gaseous fraction as taught by the prior art because of the effectiveness of the membrane. It is noted that the prior art does not specifically disclose the selectivities of membrane. However, the membrane of the prior art is similar to the claimed membrane. Therefore, it would be expected that the selectivities of the membrane of the prior art would be similar to the claimed selectivities.

Harandi does not disclose that the stripping section and the absorber section are combined in one distillation column. However, a distillation column, which comprises a stripping section and an absorber section, is known in the art (see the present specification; page 2, lines 9-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Harandi by using a distillation column comprising both a stripping and an absorber sections as taught by the prior art because a distillation column comprising a stripping and an absorber sections has an equivalent function as the stripping section and the absorber section of Harandi.

Harandi does not disclose that the liquid fraction is fed to a position in the distillation column above the feed inlet of the gaseous fraction. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Harandi by feeding the fractions as claimed because one of skill in the art would feed the fractions in any location including the claimed locations and it would be expected that locations of feeds do not affect the outcome of the modified process of Harandi.

Response to Arguments

The argument that Harandi does not teach or suggest the use of a hydrogen separation membrane is noted. However, the argument is not persuasive because the admitted prior art teaches that using a membrane to separate hydrogen from a gaseous fraction is known is the art (see the present specification; page 4, lines 25-28; page 5, lines 14-23) and hydrogen is not a critical component in the process of Harandi. Therefore, the examiner maintains that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Harandi by using a membrane to separate hydrogen from the gaseous fraction as taught by the admitted prior art because if one desires to separate hydrogen from the gaseous fraction, one would use any means including the prior art membrane, which is similar to the claimed membrane, because of the effectiveness of the membrane.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (703) 305-7715. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-5408 for regular communications and (703) 305-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tam M. Nguyen
Examiner
Art Unit 1764

TN
June 23, 2003

Walter D. Griffin
Primary Examiner